COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

Streetlight dispute by Towns of	)	
Franklin and Swampscott,	)	DTE 03-98
Contesting purchase price prepared by	)	
Massachusetts Electric	)	

REPLY BRIEF OF PETITIONERS

Mass Electric's approach to its initial brief is similar to Mass Electric's approach to the hearings, and the case in general. The major goal of the Company appears to be to distract and divert attention from the central issues in the dispute.

This case is not about the use of depreciation studies to allocate system wide reserve. All parties agree that such system wide allocations are inappropriate. While the Towns believe that such system wide allocations were not authorized by DTE 98-89, the disagreement in that regard is irrelevant at this point.

This case is not about the cost of MECO's maintenance of its streetlights. The Towns don't pretend to know, or for that matter care, how much MECO may or may not spend on streetlight maintenance. Maintenance costs do not influence capital costs or the book value of the gross plant in service. Maintenances cost are irrelevant to this dispute.

This case is not about the initial 90/10 allocation proposal that the Towns made to the Company last summer. That initial proposal was replaced by the Towns' allocation proposal, presented at the hearing, and supported by the Towns' due diligence, as reported by the Towns' witnesses. The fact that the Company has spent so much time cross examining the Towns' witnesses about that dated, and since replaced proposal, and is still talking about that dated and since replaced proposal in it's brief, can only be explained as an attempt to distract the focus from the real issue.

There are three central questions in this case, regarding the generic rules to valuing streetlights for sale, which need to be answered by the Department:

First Question Regarding Gross Plant Investment:

Does DTE 01-25 prohibit the use of the annually calculated *community specific* gross plant values in the valuation of a streetlight sale price, which *community specific* annual gross plant values appear on the general ledger books of both Boston Edison and Mass Electric, and which annually calculated gross plant values were used by BECO to value the streetlights in Waltham?

Or in the alternative, does DTE 01-25 require the sort of tinkering with the annual gross plant values, employed by Mass Electric and demonstrated in the Franklin and Swampscott streetlight valuations, that shifts the vintage year of the gross plant investment of brackets from the original installation year to the transfer year of 1980, and shifts the vintage year of the gross plant investment of foundations from the original installation year to the transfer year of 1983, and perhaps other rearrangements of the annual gross plant investment values that are yet to be disclosed, using a new two year old formula that attempts to recreate 40 years of annual gross plant values?

If Boston Edison's interpretation of DTE 01-25 was right in Waltham, Mass Electric is wrong about the interpretation of DTE 01-25 in this case. They can't both be right, because they produce dramatically different unamortized values.

Second Question Regarding the Carry Over Balance for Accumulated Depreciation:

Does DTE 01-25 prohibit the reasonable estimation of historically accumulated depreciation in the carry over year (1944 in the case of BECO), of the sort demonstrated by Boston Edison in the Waltham streetlight purchase valuation, prepared by Boston Edison following the ruling in DTE 01-25 and reviewed by the Department in DTE 02-11?

Or in the alternative, does DTE 01-25 require the irrational assumption employed by Mass Electric that there was no depreciation earned on any existing streetlight equipment (overhead wire, underground conduit or underground wire, brackets or foundations), prior to the carry over year, which is1963 in the case of MECO?

If Boston Edison's interpretation of DTE 01-25 was right in Waltham, Mass Electric is wrong about the interpretation of DTE 01-25 in this case. They can't both be right, because they produce dramatically different unamortized values.

Third Question Regarding Allocation of Unamortized Investment:

Does the statute require the allocation of unamortized investment between the streetlights to be acquired by the municipality and the streetlights to be retained by the Company?

Or in the alternative, is Mass Electric the only utility in the state that is permitted to ignore the statutory direction to allocate the components of unamortized investment (original cost and depreciation) and to thereby burden the older streetlight equipment purchased by the Town with the newer streetlight equipment retained by the Company?

If the statute required Boston Edison to account for vintage in Waltham (DTE 02-11), the same statute requires Mass Electric to account for vintage in this case.

Gross Plant Investment

Mass Electric uses two distinctly different processes for calculating gross plant value.

For streetlight tax valuation purposes, the Company uses *community specific* additions and retirements in the current year to adjust the *community specific* gross plant value from the prior year. (See the Company's response to Information Request 1-4.) Because of the nature of this annual reconciliation process, which is based on contemporary records of additions and retirements, this formula captures the vintage of new additions in the year of the original investment.

For streetlight sale valuation purposes, the Company uses a new two year old formula that attempts to recalculate 40 years of historical gross plant values. (See the Company's response to Information Request 1-9.) Because of the 40 year look back nature of this process, it is hampered by the inaccuracies in attempting to recreate 40 years worth of historical data.

Mr. Moody, the Towns' professional witness, explains the import of these two separate and distinct processes for calculating book values. The context for the question posed to Mr. Moody, was the difference between 1997 gross plant value for tax purposes and the 1997 gross plant value for sale purposes.

Q. Do you have any other observations about these two different 1997 book values?

A. Well one observation I get is I gather that the book value for property tax purposes comes from the Company's general ledger and is a product from that ledger of all the ins and outs and accounting activity that's gone on over the years in any years affected by all that previous activity. Whereas the net book calculated for sales price purposes or purchase price purposes is an excerpt of only the additions and retirements as they appear in those years from that book, without necessarily bringing the history of those entries with them.

(Transcript p. 285)

Mass Electric claims that DTE 01-25 mandates a new set of gross plant values of streetlight gross plant investment that shifts the investment in brackets and foundations to 1980 and 1983 respectively, rather than the year in which the investment was made in brackets and foundations.

" However, the transfer of gross plant investment from the single PUC to the new bracket PUC was recorded as a single vintage year and did not recognize the vintage year of the original investment. The Company took similar steps with foundations in 1983. . . Mass Electric does recognize that *pursuant to DTE 01-25*, the Company may not be providing the Petitioners with all of the depreciation associated with this investment."

(Currie Testimony, Transcript p. 35)

The Company is claiming that DTE 01-25 prevents the Company from "providing the Petitioners with all of the depreciation associated with this investment." The missing depreciation has nothing to do with any disagreement over depreciation rates, or service territory wide allocations, or the use or abuse of depreciation studies. The missing depreciation, which the Company’s witness is attributing to the new streetlight valuation rules of DTE 01-25, is related solely to the use of the transfer year as opposed to “vintage year of the original investment” for brackets and foundations.

Mr. Currie could not explain the discrepancy between the 1997 gross plant values for sale purposes and tax purposes described by Stone and Webster (see Transcript pgs. 496,497), could not confirm whether the 1963 gross plant values for tax and sale were different or not (see Transcript pgs. 483, 484, 485 and 486), and could only state that the gross plant values for tax and sale would be the same in 2003.

We cannot find any language in DTE 01-25 that would require the use of the transfer year as opposed to the “vintage year of the original investment,” or the calculation of two different sets of gross book values, both of which add up to the same value in 2003, but one of which shifts the gross plant investment for brackets and foundations to 1980 and 1983 respectively.

We can find the requirement at page 5 of the DTE 01-25 ruling that “Unamortized investment is equal to the book value of gross plant in service, net of accumulated depreciation. Petition of the Towns of Acton and Lexington, DTE 98-89.” We believe that the reference to the book value of gross plant service in the above quote at page 5 of DTE 01-25 was clearly referencing the same concept of the “book value of gross plant in service” as employed by Boston Edison in the DTE 98-89.

Boston Edison uses the annually calculated “community specific” gross plant values for both streetlight tax valuation and streetlight sale valuation. Boston Edison used these annually calculated gross plant values in the Waltham streetlight purchase valuation, four months following the ruling in DTE 01-25. These annually calculated gross plant values use current year community specific additions and retirements to update the previous year’s community specific gross plant value, and consequently captures the additions in the vintage year of the original investment.

Mass Electric uses these annually calculated “community specific” gross plant values for streetlight tax valuation only. (See Company response to Information Request 1-4, 1-9, and Currie cross examination pgs. 486,487,488.)

The question for the Department is: what was meant by the term, “the book value of the gross plant in service” at page 5 of the DTE 01-25? Does this mean what Boston Edison interpreted it to mean in calculating the DTE 01-25 purchase price in Waltham (i.e. the annually updated “community specific” gross plant values appearing on the Company general ledger)? Or does it mean what Mass Electric interprets it to mean in Franklin and Swampscott (i.e. the recently recalculated set of gross plant values that shifts the gross plant investment from the “vintage of original investment” to the transfer year, at least for brackets and foundations)?

One has to ask also about the level of disclosure by the Company regarding this issue. If the Company believes that DTE 01-25 requires the use of the transfer year as opposed to the vintage year of the original investment, why wasn’t this significant differentiating aspect of DTE 01-25 disclosed in the Company’s response to Information Request DTE 1-3? The Company knows full well that there is no depreciation on any bracket or any foundation anywhere in the *unamortized* *value calculation in existing plant data*, prior to the transfer year of 1980 for brackets and prior to the transfer year of 1983 for foundations, and the Company knows full well that the same assumption regarding the use of the transfer year instead of the "vintage of the original investment" impacts the *unamortized value calculation in the retirement data* as well. In spite of this, the Company implies that the understatement of the missing depreciation in the existing plant record alone, as estimated in the Company's response to Record Request 1, is an accurate estimate of the missing depreciation. It is not. The more accurate estimation of the missing depreciation ranges between $59,000 and $103,000, depending upon the assumption made about the actual year of the original investment in the brackets and foundations. (See Exhibit JDN 3A table 3.)

One has to ask about the level of disclosure in the celebrated meeting at the Department, prior to the filing of this dispute, at which the Company "pre-sold" to the Department its new formula for recalculating gross plant values. According to the Company, Mr. Passaggio attended that meeting. At page 360 of the hearing transcript, Mr. Passaggio is questioning the Towns' professional witness about the significance of the missing depreciation in light of the $10,000 amount of the gross plant investment shown by the Company in the carry over year of 1963. It is very clear that Mr. Passaggio was not aware that the entire investment for brackets and foundations was simply omitted from the 1963 gross plant balances. The question has to be asked: why is this recalculation of gross plant values only coming to light now?

Approach to Depreciation

Approach to accumulated depreciation in carry over year

At page 7, and again at page 16 of the Company's initial brief, the Company quotes selectively from the testimony of Mr. Moody, the Towns' professional witness. At page 292 and continuing over to page 293 of the transcript, Mr. Moody explains the "difference in arithmetic" between the Boston Edison approach to accumulated depreciation in the Boston Edison carry over year of 1944 and the Mass Electric approach to accumulated depreciation in the Mass Electric carry over year of 1963. This testimony concludes with the following quote from Mr. Moody:

" . . . the most likely place it affects it is by having a starting balance of reserve that is not shown on the Mass Electric calculations."

Stone and Webster has identified the second fundamental flaw in the Company's calculations: the failure to make a reasonable estimate of accumulated depreciation in the carry over year. With respect to the Company's calculation of the unamortized value for the existing plant in 1963 (brackets, foundations, overhead wire, underground wire and underground conduit) the Company has assumed zero accumulated depreciation. (See cross examination of Mr. Currie at pgs. 444 though 446 of the transcript.)

In Waltham, Boston Edison estimates the historical depreciation in the carry over year (1944 in their case). In every one of the reference BECO communities reviewed, the carry over reserve was set at exactly 50% of the correctly stated gross plant values in the carry over year. See for example, the following values in Exhibit DCM 3 in the carry over year of 1944:

	Gross Balance	BECO Assumption	Accumulated Depreciation	Source
Account 632	42,531.81	x.5 =	21,265.91	DCM 3 p. 61 line 1
Account 635	44,585.43	x.5 =	22,292.72	DCM 3 p. 67 line 1

The exact same 50% assumption, regarding the carry over reserve shown in accounts 632 and 635, is used in each of the BECO communities reviewed, as can be seen in the documentation attached to Towns' response to Record Request 5. (See page 5 and 11 of Natick documentation for example.)

If DTE 01-25 permits Boston Edison to make a reasonable assumption regarding the carry over reserve in the carry over year, why does the same ruling force Mass Electric to clearly and unequivocally understate the carry over depreciation in the carry over year of 1963? The Company's answer is in their response to Record Request DTE 1-1.

" In DTE 01-25 the department ruled that the purchase price can only include values that are known and municipality specific. The Company does not know for certain how much depreciation it had already taken on the brackets and foundations prior to reclassifying them from the mass plant account to their own sub accounts, and thus does not believe it would be proper to include an estimate."

(Record Request DTE – 1 p 1.)

> Where is the language in DTE 01-25 that mandates this approach? And why doesn't DTE 01-25 have the same meaning in Waltham?

Application of DTE 98-89

Regarding the application of DTE 98-89, the Company can't seem to make up its mind whether it applies or not. At page 6 of the initial brief, the Company states that DTE 98-89 does not apply, but at page 47 of Ms Burn's testimony, she testifies that it does apply.

The Petitioners believe that the generic rule in DTE 98-89 that streetlight specific depreciation rates, which reflect the useful life of streetlight equipment, must be used to value streetlight plant for sale, and that this generic rule applies to every utility in every streetlight valuation. The Petitioners further believe that the Company has not met the burden to demonstrate that the 4% depreciation rate assumption (for the 50 years prior to 1971) meets the useful life standard articulated in DTE 98-89.

Approach to Allocation

The Company states at page 12 of the initial brief that "the company uses a revenue allocator to allocate unamortized value of the streetlight plant to various streetlight and pole types located within the community." Our first problem with this approach is that the statute does not require an allocation “to various streetlight and poles types.” The statute requires an allocation between equipment acquired and not acquired.

An allocation of one average price of $433.97 to every underground served pole in Franklin, whether it was installed in 1975 or 2003, whether it has been depreciated for 29 years or 1 year, is not an allocation of unamortized investment, as that term is used in the statute, or as that term has been defined in the DTE rulings. The Company’s purchase price data *does* distinguish between the unamortized investment of underground equipment installed before and after January 1, 1995. The Company’s allocation formula *does not*.

The respective allocation proposals of the Petitioners and the Company with respect to Swampscott can be summarized as follows:

	Pre-sodium Period	Post-sodium Period	Overall Allocation
Company Allocation To Swampscott	92%	92%	92%
Petitioner’s Allocation To Swampscott	92%	8%	27%

The respective allocation proposals of the Petitioners and the Company with respect to Franklin can be summarized as follows:

	Pre-sodium Period	Post-sodium Period	Overall Allocation
Company Allocation To Franklin	78%	78%	78%
Petitioner’s Allocation To Franklin	78%	22%	33%

The difference between the allocation proposals relates to the post sodium conversion time period in both communities. The post sodium allocation of the Towns is based on a reasonable attempt to account for the additions activity, and coincident retirement activity of the municipal streetlights to be acquired. The post sodium allocation of the Company makes no attempt to account for the additions activity or coincident retirement activity of the municipal lights to be acquired.

The Towns’ estimate of municipal additions in the post sodium time period was summarized in Exhibit DCM 4, Table 9. That table makes the following estimates of new municipal additions in the post sodium time period:

	New Requested Fixtures	Non requested Fixture	Total
Replacements			
Swampscott	11	48	59
Franklin	98	45	143

With respect to the newly requested fixture additions in both communities, the Towns used higher values, based on the Towns' review of Town records, rather than those that Mass Electric could document by looking at Mass Electric records.

With respect to the non requested fixture replacements, the Towns' estimate of fixture replacements, when the sodium fixtures were on average 4 to 5 year old, is consistent with the sodium fixture replacement frequency in the four reference communities in the Brite Lite report, in which the sodium fixtures were on average 10 years old. (See Exhibit DCM 4 Table 9.) The Towns' estimate is also consistent with the Mass Electric fixture retirement rate in Swampscott in the 1964 to 1970 time period, when the predominant fixture was the mercury 4200 fixture, when those MECO fixtures were on average 15 to 20 years old. (See Appendix 1 to Initial Brief, or in the alternative, MECO Ex. 7 p. 199, lines 75, 76 88, and p. 200, lines 18,11, 37, 1, 10, 36, 2, 9, and 25.) And the Towns' total count of new municipal fixtures in Swampscott is consistent with the municipal fixtures identified in the MECO 2001 streetlight inventory, as having effective dates after the end of the sodium conversion. (See Exhibit Inventory 2.)

The Company's allocation of price (as opposed to unamortized investment), is based on the Company's inventory records. Those records are extremely inaccurate. The Company's count of dedicated poles in Franklin is wrong. The Company's inventory records in Haverhill and Quincy were wrong. The inventory records undercount the commercial streetlights, as is evidenced by the missing poles in Franklin (30 of the 61 poles serving commercial accounts listed in Exhibit WAF 6 were excluded from the Company's total count of poles in the Town.)

The Company's allocation of 92% of the post sodium values in Swampscott to the lights to be purchased by the Town ignores the evidence in the Company's retirement record that the lion's share of the post sodium period activity related to the commercial lights. (See MECO Exhibit 7, pgs. 202 and 203 related to the retirement $30,710.47 of mercury lights, or approximately 279 mercury lights, in the post sodium time period, when the Town no longer owned any mercury lights.) The retirement of commercial mercury lights strongly implies that the commercial lights were being converted to sodium in the time frame following the completion of the municipal sodium conversion.

The Company's allocation of 78% of the post sodium values in Franklin to the lights to be purchased in Franklin ignores the uncontested concentration of post sodium activity in the neighborhood developments by developers on private, yet to be accepted, streets. This allocation also ignores the specific exclusion of all dedicated poles and associated underground equipment since January 1995 from the purchase, which excluded equipment, according to the Company's purchase price data represents 75% of the unamortized investment of all the underground equipment in the Town: ($89,743.19 (unamortized value of excluded underground equipment, as per MECO Ex 7 pgs. 168, 169) divided by $119,064.86 (unamortized value of total underground equipment as per same exhibit pgs. 167).

In short, the Company's allocation proposal has nothing to do with the components of unamortized investment. The Towns have made a bona fide effort to make the allocation that the Company should have made.

Finally, the Company complains in its initial brief that the Towns only reviewed the activity since the sodium conversion and essentially accepted the Company's allocation up through the sodium conversion. The Company cites the Town's "utter lack of any analysis" regarding the delineation of pre sodium activity and pre sodium unamortized values. Our first comment is to note the irony. The Towns have accepted the Company's analysis in this regard. We note further, that the Company, not the Town, is responsible for doing the analysis in the first place.

The Company argues that pre sodium / post sodium allocation of 100% of the unamortized value pre sodium to the Community, and (presumably) 100% of the post sodium unamortized value to the lights retained by the Company would be more equitable. In the pre sodium time period, one would essentially ignore the minimal contribution of the commercial streetlight inventory to pre sodium unamortized values. In the post sodium time period, one would essentially ignore the minimal contribution of the municipal streetlight inventory to the post sodium unamortized values. In the absence of better information from the Company on how to allocate pre sodium and post sodium unamortized values, this not a bad proposal.

In Swampscott, such an allocation (100% pre sodium / 0% post sodium) would assign 36% of the total unamortized values, *as calculated by the Company*, to the Town, based on the vintage based delineation of unamortized values between the pre sodium and post sodium time periods in the Company's purchase price data. If just two corrections are made to the Company's unamortized value calculations: a) replace the missing depreciation associated with the brackets and foundations between 1963 and the transfer dates; and b) make a reasonable estimate of the accumulated depreciation in the carry over year, then an allocation of 100% of the pre-sodium unamortized value to the Town, and zero % of the post sodium unamortized value to the Town, results in a negative value, or a $1 purchase price for the Town of Swampscott.

In Franklin, one would need to add the single additional step of removing the unamortized values associated with the underground equipment that is not purchased, which was installed in 1995 (the last year of the sodium conversion). The end result in Franklin would be approximately $170,000, as compared to the $430,951 proposed by the Company, which would be a far more equitable result.

Conclusion

The Petitioners contend that the generic rules used to establish the DTE 01-25 purchase price in Waltham should also apply in this case. Those generic rules would include:

1) The calculation of streetlight plant value should be based on gross plant investment values that reflect the gross investment of brackets and foundations in the year of the original investment. The Towns believe that if Mass Electric is directed to include brackets and foundations in their calculation of unamortized investment from 1963 forward, rather than 1980 and 1983 forward, the

impact of this single change will add approximately $59,000 to the accumulated depreciation account in both communities.

2) The calculation of streetlight plant value should be based on the reasonable estimation of a carry over reserve in 1963 that is designed to approximate the historical reserve attributable to the historical depreciation on streetlight equipment. In the absence of a better assumption, the Petitioners would recommend the use of the 50% assumption employed by Boston Edison. And this 50% assumption should be applied after the gross investment values have been corrected to reflect the addition of the bracket and foundation investment to the beginning balance in gross plant investment in 1963. The Towns believe that if Mass Electric is directed to make the correction regarding bracket and foundation investments, and then to make the estimate of the historical reserve as demonstrated in the "Boston Edison Method," the combined impact of these two changes would add approximately $142,000 to the accumulated depreciation account in Swampscott and approximately $124,000 to the accumulated depreciation account in Franklin.

3) The calculation of streetlight plant value should be based on the annually calculated community specific gross plant values, which appear in the Company's general ledger, not a new set of recently reconfigured gross plant values that are hampered by the inaccuracies of a 40 year look back process. A third party audit is only meaningful if this is the rule. If the Department allows a recalculation of gross plant values, that allows gross plant values in 1997 and 1983 and 1980 and 1963 to be different for tax and sale purposes, a third party audit will simply confirm that that is the case. The Petitioners do recognize that the correction regarding the correct vintaging of the brackets and foundations coupled with a reasonable estimation of the carry over reserve in 1963 will minimize the impact of this issue.

4) The calculation of streetlight plant value should be based on the application of streetlight specific depreciation rates to correctly stated gross plant values, which depreciation rates should reflect the useful life of streetlight equipment. The Petitioners do recognize that a suitable assumption regarding the carry over reserve in 1963 would minimize the impact of this issue.

5) The Company should be required to either: a) develop an allocation that recognizes vintages, accounts for differences in installed cost over time, and accounts for differences in depreciation paid over time, or b) accept the pre sodium / post sodium allocation proposal of the Petitioners, or c) in the absence of better data to be provided by the Company, use the 100% / 0% pre sodium / post sodium allocation of unamortized values to the Towns as suggested in the Company's initial brief. An allocation of price that is not based on differences in installed cost and depreciation is not an allocation of unamortized investment.

Respectfully Submitted,

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